

INTERNATIONAL SEARCH REPORT

International Application No
101/EP2004/011461

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C07C2/40 C07C5/05

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| A | P ROFFIA ET AL: "Catalysis by palladium salts IV selective hydrogenation with formic acid in the palladium catalysed dimerisation of 1,3-butadiene; synthesis of 1,7-octadiene" JOURNAL OF ORGANOMETALLIC CHEMISTRY., vol. 55, 1973, pages 405-407, XP002279516 ELSEVIER-SEQUOIA S.A. LAUSANNE., CH ISSN: 0022-328X the whole document ----- -/-- | 1-15 |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

1 February 2005

Date of mailing of the international search report

10/02/2005

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| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|--|---|-----------------------|
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| A | M F SLOAN ET AL: "Soluble catalysts for the hydrogenation of olefins" JOURNAL OF THE AMERICAN CHEMICAL SOCIETY., vol. 85, no. 24, 1963, pages 4014-4018, XP002279518 AMERICAN CHEMICAL SOCIETY, WASHINGTON, DC., US ISSN: 0002-7863 example 2; table 1 | 1,16-21 |
| A | WO 03/031378 A (MASCHMEYER DIETRICH ;OXENO OLEFINCHEMIE GMBH (DE); SANTIAGO FERNAN) 17 April 2003 (2003-04-17) cited in the application page 3, line 19 - line 24 page 6, line 17 - line 21 examples 1-4 | 1-21 |
| A | US 4 229 605 A (NOZAKI KENZIE) 21 October 1980 (1980-10-21) column 2, line 44 - line 68 table 1 | 1-15 |
| A | EP 0 704 417 A (KURARAY CO) 3 April 1996 (1996-04-03) cited in the application example 1 | 1-15 |
| A | EP 0 008 139 A (SHELL INT RESEARCH) 20 February 1980 (1980-02-20) table II claim 1 | 1-15 |
| A | US 4 243 829 A (HANES RONALD ET AL) 6 January 1981 (1981-01-06) examples 1,5 | 1-15 |

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Information on patent family members

International Application No

PCT/EP2004/011461

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|---|---------------------|--|--|
| WO 03031378 | A | 17-04-2003 | DE 10149347 A1 WO 03031378 A1 EP 1446374 A1 | 10-04-2003 17-04-2003 18-08-2004 |
| US 4229605 | A | 21-10-1980 | DE 2965830 D1 EP 0012472 A1 JP 1052371 B JP 1583193 C JP 55081819 A | 11-08-1983 25-06-1980 08-11-1989 22-10-1990 20-06-1980 |
| EP 0704417 | A | 03-04-1996 | CA 2159135 A1 DE 69507414 D1 DE 69507414 T2 EP 0704417 A2 JP 9124518 A US 5763718 A | 29-03-1996 04-03-1999 02-09-1999 03-04-1996 13-05-1997 09-06-1998 |
| EP 0008139 | A | 20-02-1980 | DE 2962197 D1 EP 0008139 A1 JP 55019275 A | 25-03-1982 20-02-1980 09-02-1980 |
| US 4243829 | A | 06-01-1981 | US 4377719 A | 22-03-1983 |

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